

REMARKS

Claims 6-16 remain in this application. Claims 1-5 were previously canceled. Reconsideration of the application is requested.

The two documents cited in the information disclosure statement dated October 17, 2005, but not considered by the Examiner are again cited in another information disclosure statement filed herewith.

The comments provided by the Examiner in the last paragraph on page 3 of the Office Action are noted with appreciation. Each of claims 10-12 is rewritten above in independent form and should now be allowable.

Independent claim 6 is rejected under 35 U.S.C. § 102(b), along with various dependent claims, as anticipated by U.S. Patent application publication 2002/0086772 to Abe et al. Reconsideration is requested.

The operating method presently defined by claim 6 permits an increase in braking torque acting on the motor vehicle independently of the degree of actuation of the brake pedal. By contrast, the control device described in the Abe et al. document cannot increase the braking torque; instead, as is apparent from paragraphs 0028 and 0029 of the Abe et al. document, the Abe et al. control can only maintain an acting braking torque or a prevailing brake pressure. An electromagnetic valve, which can be closed by the control device, is arranged between the brake pedal and the wheel cylinder. Upon closing that valve, the pressure prevailing at the wheel cylinder is maintained, even if the vehicle driver releases the brake pedal. Consequently, it is not possible for the control device to increase the brake pressure. It can only hold that brake pressure.

The method described in the Abe et al. document thus lacks features required by claim 6. The Abe et al. stop-restart control, in other words, does not include the particular acts or operations of determining a threshold value as a function of at least one of state variables and operating variables of the motor vehicle before a brake device is actuated, checking whether a currently acting braking torque is smaller than the threshold value at the start of and during an automatic stop phase of the internal combustion engine, and increasing the brake torque to a value which is greater than or equal to the threshold value when the currently acting braking torque is smaller than the threshold value as claim 6 particularly defines.

The subject matter of claim 6 differs significantly from the Abe et al. stop-restart control. According to claim 6, the control device can increase the braking torque independently of the degree of actuation of the brake pedal. Before the activation of the braking device, the control device determines the threshold value as a function of state variables and/or operating variables of the motor vehicle, and, at the start and during the automatic stopping phase of the internal combustion engine, the control device checks whether the currently acting braking torque is lower than the threshold value. When this is the case, the braking torque is increased to a value that is no less than the threshold value.

One object of the present invention is to propose a method by which reliable motor vehicle operation and motor vehicle spontaneity during an automatic internal combustion engine start are compatible. The Abe et al. disclosure would have suggested the invention to a person skilled in the art;

nothing in the Abe et al. disclosure suggests that it is possible to increase the braking torque independently of a brake pedal actuation degree.

Because it is possible to increase the braking torque independently of the degree of actuation of the brake pedal, a method according to the invention has, with respect to the Abe et al. control, the advantage that unwanted movement of the motor vehicle can be prevented, even when the vehicle driver does not actuate the brake pedal sufficiently at the start of a stopping phase. This allows the motor vehicle to be operated reliably. Moreover, the internal combustion engine can be stopped even with a lower degree of actuation of the brake pedal. This makes frequent stopping of the internal combustion engine possible, leading to improved fuel efficiency and lower exhaust gas emissions.

The Abe et al. disclosure additionally lacks any suggestion that a threshold value is to be determined as a function of motor vehicle state variables, operating variables, or both such variables. Instead, as is apparent from paragraph 0039 of the Abe et al. document, a fixed threshold value F1 is used, is fixed once again, and then can no longer be changed.

By calculating the threshold value as a function of motor vehicle state variables, operating variables, or both, the threshold value, and consequently the set braking torque, can be adapted to the current state of the motor vehicle. The braking torque is thus set only as high as necessary. In contrast to this, a maximum braking torque could always be set. Since the reduction in the braking torque takes up a certain amount of time, this would adversely influence the spontaneity of the motor vehicle after an automatic start. What can

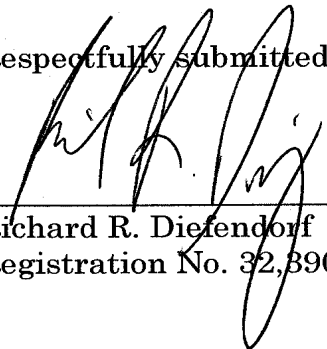
consequently be achieved according to the invention is that the motor vehicle can be accelerated very quickly from standstill after an automatic start.

It is respectfully submitted that claim 6 as it appears above is patentable. Claims 7-9 and 13-16 depend on claim 6 and should be patentable as well. All claims now in this application, therefore, should now be patentable.

This application should now be in allowable condition. If there are any questions regarding this Reply or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an extension of time sufficient to effect a timely response. Please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #095309.56875US).

Respectfully submitted,



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